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ABSTRACT

Compared to the rest of the school day, recess is a time when children have more freedom to choose what they want to do and with whom. In light of the current climate of school accountability, this digest discusses research on recess and its relationship to learning, social development, and child health, as well as research on related topics that have implications for recess policy such as the need for breaks and physical activity. It also reviews the relationships between recess and learning, recess and social development, and recess and child health noting that available research suggests that recess can play an important role in these three areas of development. The digest calls for further research to assess the effects of "no recess" policies, how often recess breaks should occur, and how much involvement/guidance is needed from adult supervisors. (HTH)

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ERIC Digest

By

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Recess in Elementary School: What Does the Research Say?

Olga S. Jarrett

Pellegrini and Smith (1993) define recess as "a break period, typically outdoors, for children" (p. 51). Compared to the rest of the school day, recess is a time when children have more freedom to choose what they want to do and with whom.

A 1989 survey of state superintendents conducted by the National Association of Elementary School Principals (NAESP) found that schools in 90% of school districts had at least one recess period during the day (Pellegrini, 1995). However, according to the American Association for the Child's Right to Play (IPA/USA), many school systems have abolished recess since 1989. Safety and liability concerns and fears that recess will disrupt work patterns may underlie the decision to do away with recess (Pellegrini, 1995). Other reasons cited for abolishing recess include the need for more instructional time. Personal conversations with principals and teachers suggest that they feel pressured to pack more instruction into the school day because of new calls for accountability.

Given the current national emphasis on research-based decisions in education, the question of what the research says—and infers—about recess is important (Jarrett & Maxwell, 2000). This Digest discusses research on recess and its relationship to learning, social development, and child health, as well as research on related topics that have implications for recess policy such as the need for breaks and physical activity.

Recess and Learning

The most obvious characteristic of recess is that it constitutes a break from the day's routine. For people of all ages and in all fields, breaks are considered essential for satisfaction and alertness. Experimental research on memory and attention (e.g., Toppino, Kasserman, & Mracek, 1991) found that recall is improved when learning is spaced rather than presented all at once. Their findings are compatible with what is known about brain functioning: that attention requires periodic novelty, that the brain needs downtime to recycle chemicals crucial for long-term memory formation, and that attention involves 90- to 110-minute cyclical patterns throughout the day (Jensen, 1998).

In experimental studies, Pellegrini and Davis (1993) and Pellegrini, Huberty, and Jones (1995) found that elementary school children became progressively inattentive when recess was delayed, resulting in more active play when recess occurred. Another experimental study (Jarrett et al., 1998) found that fourth-graders were more on-task and less fidgety in the classroom on days when they had had recess, with hyperactive children among those who benefited the most. Clearly, breaks are helpful, both for attention and for classroom management, whether or not the breaks are in the form of recess.

Does time spent playing or learning actively detract from academic achievement? Research conducted in French and Canadian schools over a period of four years shows positive effects of time spent in physical activity (Martens, 1982). The results of spending one-third of the school day in formal and less formal physical education, in art, and in music were increased fitness, improved attitudes, and slight improvements in test scores. These results are consistent with the findings of a meta-analysis of nearly 200 studies on the effect of exercise on cognitive functioning that suggest that physical activity supports learning (Etnier et al., 1997).

Recess and Social Development

Recess may be the only opportunity for some children to engage in social interactions with other children. Many classrooms allow very little interaction. Furthermore, latchkey children, who lock themselves in at home after school with TV and computer games as companions, often have no peer interactions once they leave school.

Much of what children do during recess, including the sharing of folk culture (Bishop & Curtis, 2001), making choices, and developing rules for play, involves the development of social skills. According to observations during elementary school recess (Jarrett et al., 2001), children organize their own games, deciding on the rules and determining which team goes first or who is "it." Game playing can occur in the classroom as well as on the playground; however, according to Hartup and Laursen (1993), game playing in the classroom is typically in a "closed setting" where the children cannot withdraw from the game. Recess provides a more "open setting" where children are free to leave the play situation. In open settings, children must learn to resolve conflicts to keep the game going, resulting in low levels of aggression on the playground.

Because recess is one of the few times in the school day when children can interact freely with peers, it is a valuable time in which adults can observe children's social behaviors, their tendency to bully and fight, as well as their leadership and prosocial behaviors (Hartle et al., 1994). Seeing how their students interact socially can help teachers and other playground supervisors intervene in situations involving aggression or social isolation. Successful intervention programs have been developed for teaching inclusion and sportsmanship (Gallegos, 1998). Other intervention programs have used children as playground leaders (Calo & Ingram, 1994), conflict managers (Evans & Eversole, 1992), or as play partners to help individual students manage their own behaviors (Nelson, Smith, & Colvin, 1995). There is some evidence that playground interventions generalize to better behavior in other settings (Nelson, Smith, & Colvin, 1995).

Recess and Child Health

Physical inactivity poses health threats for children as well as for adults. Inactivity, according to research cited in Waite-Stupiansky and Findlay (2001), is associated with the tripling of childhood obesity since 1970, accompanied by increases in health problems such as high blood pressure and high cholesterol. How active are children during recess? Kraft (1989) found that elementary school children engaged in

physical activity 59% of the time during recess, with vigorous physical activity occurring 21% of the time—slightly more time in vigorous activity than occurred during physical education (PE) classes (15%). More recent research cited in Pellegrini and Smith (1998) shows similar patterns. Although not all children are active during recess, children's tendency to choose physical activity on the playground when they need it the most is expressed in higher levels of activity on the playground after recess was delayed (Pellegrini & Davis, 1993; Pellegrini, Huberty, & Jones, 1995); higher activity levels by children who tend to be inattentive in the classroom (Pellegrini & Smith, 1993); and high initial activity levels, decreasing after the first 6-7 minutes on the playground (Pellegrini & Davis, 1993). If children do not have the opportunity to be active during the school day, they do not tend to compensate after school. Experimental research found that children were less active after school on days when they had no recess and PE classes in school (Dale, Corbin, & Dale, 2000).

Can PE be substituted for recess? The National Association for Sport and Physical Education says "No." In their position statement, they recommend both PE and recess, with PE providing a "sequential instructional program" related to physical activity and performance and recess providing unstructured play time where children "have choices, develop rules for play...and practice or use skills developed in physical education" (Council for Physical Education and Children, 2001).

Conclusion

The available research suggests that recess can play an important role in the learning, social development, and health of elementary school children. While there are arguments against recess, no research clearly supports *not* having recess. However, more research is needed to determine the current percentage of schools that have abolished recess and assess the effect of no-recess policies on student test scores, attitudes, and behaviors. Further experimental research could help clarify how often recess breaks should occur, whether indoor recess can substitute for outdoor recess, and how much involvement/guidance is needed by adult supervisors.

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